OHIO EPA SURFACE WATER HUMAN HEALTH CRITERION FACT SHEET

Chemical Name: <u>Iron</u> Developed by: <u>Bob Heitzman, John Estenik</u>
CAS # 7439-96-5 IRIS Data Retrieval Date: <u>No file in IRIS 2-13-98</u>

Internal Code # ___ Fact Sheet Preparation Date: 2-13-98

CRITERIA SUMMARY

Lake Erie Basin			
Tier I HNC (μg/l)		Tier I HCC (μg/l)	
Drinking	Nondrinking	Drinking	Nondrinking
ID	ID	ID	ID

EXPOSURE AND TOXICITY DATA

Human health trophic level 3 bioaccumulation factor (BAFHH_{TL3}) = Not available

Human health trophic level 4 bioaccumulation factor (BAFHH_{TL4}) = Not available

Acceptable daily exposure (ADE) = Not available

Carcinogen assessment: Not available Cancer slope factor (q_1^*) = Not available

Body weight of average human (BW) = 70 kg (OAC 3745-1-38)

Relative source contribution factor (RSC) = 0.8 (OAC 3745-1-38)

Per capita water consumption (WC) = 2.0 l/day for drinking water criteria (OAC 3745-1-38)

= 0.01 l/day for nondrinking water criteria (OAC 3745-1-38)

Mean consumption of trophic level three fish (FC_{TL3}) = 0.0036 kg/day (OAC 3745-1-38) Mean consumption of trophic level four fish (FC_{TL4}) = 0.0114 kg/day (OAC 3745-1-38)

REFERENCES

Integrated Risk Information System. USEPA Office of Research and Development, National Center for Environmental Assessment.

Ohio Administrative Code rule 3745-1-38: Methodologies for Development of Human Health Criteria and Values for the Lake Erie Drainage Basin. Effective 10/31/97.

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CALCULATION OF HUMAN NONCARCINOGENIC CRITERION (HNC) a

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 $\mathsf{HNC} \ = \ \frac{\mathsf{ADE} \ \mathsf{x} \ \mathsf{BW} \ \mathsf{x} \ \mathsf{RSC}}{\mathsf{WC} + [(\mathsf{FC}_{\mathsf{TL3}} \ \mathsf{x} \ \mathsf{BAFHH}_{\mathsf{TL3}}) + (\mathsf{FC}_{\mathsf{TL4}} \ \mathsf{x} \ \mathsf{BAFHH}_{\mathsf{TL4}})]}$

Insufficient data (no ADE or BAF).

CALCULATION OF HUMAN CARCINOGENIC CRITERION (HCC) a

 $\frac{\mathsf{RAD} \times \mathsf{BW}}{\mathsf{WC} + [(\mathsf{FC}_\mathsf{TL3} \times \mathsf{BAFHH}_\mathsf{TL3}) + (\mathsf{FC}_\mathsf{TL4} \times \mathsf{BAFHH}_\mathsf{TL4})]}$

Insufficient data (no q₁* or BAF).

^aSee Ohio Administrative Code 3745-1-38 effective October 31, 1997.